



IFWO

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/750,622

DATE: 09/02/2004

TIME: 09:58:33

Input Set : D:\MMI1150.txt

Output Set: N:\CRF4\09022004\J750622.raw

3 <110> APPLICANT: MMI GENOMICS, INC.  
 4 DeNISE, Sue K.  
 5 CHARTERIS, Paul  
 6 ROSENFELD, David  
 7 HOLM, Tom  
 8 BATES, Stephen  
 10 <120> TITLE OF INVENTION: COMPOSITIONS, METHODS, AND SYSTEMS FOR INFERRING BOVINE  
 BREED

12 <130> FILE REFERENCE: MMI1150  
 14 <140> CURRENT APPLICATION NUMBER: US 10/750,622  
 15 <141> CURRENT FILING DATE: 2003-12-31  
 17 <150> PRIOR APPLICATION NUMBER: US 60/437,482  
 18 <151> PRIOR FILING DATE: 2002-12-31  
 20 <160> NUMBER OF SEQ ID NOS: 64922  
 22 <170> SOFTWARE: PatentIN version 3.1  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 600  
 26 <212> TYPE: DNA  
 27 <213> ORGANISM: Bovine MMBT02545  
 29 <400> SEQUENCE: 1

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34	cggattaaag	aaacaatcca	atggtgacaa	agaaatattt	ataacataaa	tcataattaa	180
36	atattagata	aataaacata	aaaataatgt	cccaaaagga	ttcccaagaa	agacaattta	240
38	atggacaaaag	gcagggatat	atatgaatgc	ttaaattggtt	tcatgaatat	tgattagctr	300
40	gattttttttt	agtgtgtgag	tgaaggagta	gtatgctgag	ggacaaaagt	gatggacca	360
42	aatctgagtt	ttatggtttt	tcagataaat	acgcattttt	gtttatttac	acagagagat	420
44	attgtcctac	taatatgata	tctccaccag	gcccatataa	acttatgtgc	taacctctgt	480
46	ttcacacatt	aacgacaaac	aggacataac	gcttctgcac	gaaaggaaac	acatactgag	540
48	agttgtttga	aacaaaaaaa	aaaaaggaag	aaggaggaaa	aacctgatct	tttgtaaata	600

51 <210> SEQ ID NO: 2  
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 53 <212> TYPE: DNA  
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61	gccccatgact	gtgtgccagc	tacctogaac	atggggaaat	cgtttctcat	caattgtacc	180
63	tttttagcgca	aaagtttctt	aagctgtagg	tgcagaagag	attgtcccag	tctgacagat	240
65	ggagaaactg	aggcagagag	gacgaagggc	ttgtttcctc	atcagagcta	gagagcagay	300
67	gtgtttcata	ttttttttcc	tcagactacg	tttttccacc	tgctactgta	aggaccctca	360
69	ccaagtttat	gacccttaaa	atgtctttta	tttcttaaaa	tccaaaagta	ataattaata	420
71	gccccaaagaa	cttagtgcca	ctgcagctgc	tgaggccagg	aacggttact	cggtaggagc	480
73	ctaattgctgg	agcagtgctg	ccccctggtg	cctactggga	gtattccocag	atttccctag	540



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88 gcttccattt ttaatcctct ttgtgttcac tactttatat tgaaagtatt cttcaggctg      180
90 attttttttt tccccctcc aacccttcag tcatacgtag tgaaaaaagt catatgaatt      240
92 aaatataaat aggcctttcta ggcttttaaa attattaaat attcacagtt cctaagtcty      300
94 gactctttct gtggcagcca ggcactactc aggggaagag atataaaagt agctttaaaa      360
96 cagaaggaca agatgctact ttcttttagt aaaaggtgaa agaaatttta agatgagatt      420
98 cagaaaaggg gcaggtagg ttctaaacta agattctcaa gttctaaaca gaatttcgct      480
100 taaggacact tatttattaa aactcctttt cctttttccc aatgaagcct aataccctga      540
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113 tgtagcaatg cctttaaagt aatttttgag aaagataaca cacaattagg aaggtgcaga      120
115 caacacaaac atggatctag atggattatc ataaagcaaa catctctgga ccaccacag      180
117 gagtcaataa atacaacaca ggagacatca cagaagactg ctgttagcct cccaatcccg      240
119 aggcctcttc tctcccagaa aaggcagctc ctaacaaagt tgtcttagtt tctcttcccr      300
121 tttctccaaa gttttaaaat cttagcagac ccttcacatt taaagtgtg gacctctttc      360
123 tatgctaatt aattcatcac tccttttaat gactctattt taaaaagaga ggtacctgck      420
125 tacatttttt aactgctcag attttaaatg tctacttgct atattaacgt gaattgtttt      480
127 actgtgcagt atgcrgatgc ttccaggtgc cagtcatttg gataagcatt gccatttgcc      540
129 cccagttaaa tggccttaga cctctgaaat acttctaatt cattcctttg tgccctttca      600
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133 <211> LENGTH: 372
134 <212> TYPE: DNA
135 <213> ORGANISM: Bovine MMBT17660
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138 ttttaatggt atgaaagtat ttaatatattt aaaatcagag tccacatcaa ataatttttc      60
140 tttattcaac ttttatctga gtttccaatt ctgaaaaatc aagaaattca ttcaaaaatt      120
142 atagatagct gtagatataa gtatcagtc cagtactcac atggcatttt ttttctgct      180
144 tgcttttgaa taaaaaccta cataatgaac acgataatat ggtaggattt gggccatgta      240
146 attttcccat ttagactttt ttcattcatt ttctgtaatc tgatctcatg gtcttcttgm      300
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153 <210> SEQ ID NO: 6
154 <211> LENGTH: 600
155 <212> TYPE: DNA
156 <213> ORGANISM: Bovine MMBT17471
158 <400> SEQUENCE: 6
159 cctagtctac actgaatctg gcaatcagga aatctgctag gccctgtgta acacaggtga      60

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161 caattttctct tagtgccatc ggtgtatggt acaagggcgg ggattgggct gatccgactc 120
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165 ggagcggcctt aggaagggtt taatttagct gaaaatacaa atggcaaaat caaaggtaat 240
167 tttttccctc ctgctgtaag aaaccagtg acatctgtga ggtgggttga ttcacatcar 300
169 gggaagcttt tgaaaaatgg agatggcaat taattggact tcagaggatg gtgacagttt 360
171 tttctaattgt cttgatttcc tatcaagaca ttggccactt ttctgcaggg cctcaagaca 420
173 gtaattagat gtcattgtcg aatgtgactc caaggtctca ggcgacacca gttctaacta 480
175 gagcgccccc aaacacagga tgagacaatc agcttggccg gcggcgtcac ctgagagtca 540
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180 &lt;210&gt; SEQ ID NO: 7

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185 &lt;400&gt; SEQUENCE: 7

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188 atttgagaca tttattctct atctcaaaca tgtacccttc tggctcttcta ggataataag 120
190 aaacactact gtgaattact gttggattgt ggtgggtggg gtggtgcagg aggaggagag 180
192 gagaggagac ccctttaggg gaatgtgttg gggttgagca ttgagaacta ggatgtttct 240
194 gtgtggatca ggtttgtgca gagatggatc aatgactcag gagtgtacac agatcctatk 300
196 ctttgtaccc tttagaaatt aggctgatca tcagcctcac cttgaaatat ctcttattcc 360
198 tttgtaatca acatgtggaa ctggtgaaag aatgtctgct gatggatata tttcaactaa 420
200 tcttaaaatg gtggatgtct gtttaatttt aaactgggta ccatgacatc ccctgtgctg 480
202 aacattcaca aacagctgga cttagaagga aatgtacaaa tgtagtgttc acagattact 540
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207 &lt;210&gt; SEQ ID NO: 8

208 &lt;211&gt; LENGTH: 598

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210 &lt;213&gt; ORGANISM: Bovine MMBT00031

212 &lt;220&gt; FEATURE:

213 &lt;221&gt; NAME/KEY: misc\_feature

214 &lt;222&gt; LOCATION: (1)..(90)

215 &lt;223&gt; OTHER INFORMATION: n is any nucleotide

217 &lt;400&gt; SEQUENCE: 8

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W--> 218 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60
220 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn aatgtccagc cttgtttaga tccaccagaa 120
222 gtgttgaata tatggacttt catgacgtta cctaaacact tggccttcct ctcaacatcc 180
224 taaacatttg cttgtgaatt ttcttgattt gggatttata tttctgaagc atacacccaa 240
226 gggaagggat tcaggactgt cctcaccacac ctctgtccat ggctcttttc cacaaaaacr 300
228 cctattcctt ctaggtcacg cttttgttca ctgccttccc tgctggtcta cccagctcct 360
230 atggcaaggc ctccctcacg ccagacttcc tccragaaat cactmtggac ccctcagccc 420
232 atcttctcct gcccatctct gaatacatct gggacctgat ttcattctgga ctgctgctct 480
234 ggttgtgtca ttgataagtt agctgacaaa gacaaaaatga agtctaatac aaaatgaacc 540
236 atccgttgat tcataaccat acagcaargg agtctctctg gtcactttcc tggacagg 598

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239 &lt;210&gt; SEQ ID NO: 9

240 &lt;211&gt; LENGTH: 600

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242 &lt;213&gt; ORGANISM: Bovine MMBT00078

244 &lt;400&gt; SEQUENCE: 9

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245 gctttatggg gctgggttgg gcaaagcctg tgctattttt tttaaatggt gcctggggat 60

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249 ccacacgtct cctctggttt tgagaagaga tctaataccag gatctgactg ctcattgctcc 180
251 atcctcattg ggacattttc tgagctgagg tgtgagcaaa gcatcagcta aaacatgcac 240
253 cctgaggagc aaatagaaac ctaggtgggg ccccatcctc cttgcatggc tgcaggggtr 300
255 gtgtttgaat ggggtggtcct tctgactga tggccaccgt cagagggaaa tctctgaaag 360
257 cagataccag tttgagccat ggctctgccc gctctgggct gtgtgacctc agataagtca 420
259 ctgcgtgtct ctgagaccat ttctcttttt cgtgaggagg tgagggtcag ggctatgggtg 480
261 aggtgttcca gagaagggtg gtttgacac acctggcact tgtgctgggc agcagaggat 540
263 gcatgggaac ccgaacctgg gttgggggtca gggggctggg ggaaaggagg agagtgggga 600

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266 &lt;210&gt; SEQ ID NO: 10

267 &lt;211&gt; LENGTH: 598

268 &lt;212&gt; TYPE: DNA

269 &lt;213&gt; ORGANISM: Bovine MMBT00032

271 &lt;220&gt; FEATURE:

272 &lt;221&gt; NAME/KEY: misc\_feature

273 &lt;222&gt; LOCATION: (1)..(31)

274 &lt;223&gt; OTHER INFORMATION: n is any nucleotide

276 &lt;400&gt; SEQUENCE: 10

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W--> 277 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn ntcttctgac tccccccacc ccccgcatte 60
279 cttttctctt tttccccccc ttttagtagt caagggaanaa aaaaaaagag caagcagagc 120
281 tgacagggtat cattcagccg ccctggcttg tgaggggttg tataaatgaa tctcagggct 180
283 cctgggttca catgattcaa acatgcgtta ttgaagatgg atgttcctta aaaaaagatt 240
285 gatgggtgat gccgggctta ggggtgccatt tatcattttg aatattattt agacttgccr 300
287 tgtaaacctg taacttgaga gttggacgag ccgrggctgg gttagggcct gtgtgtgtgt 360
289 gtgtttccat cgattggcct tgggttatca ttgctgctga ccagatgcag tccctcccat 420
291 ttacagtata gaagacaccc ccctcccgtta aaggagggac ggtttaattt tgaataattt 480
293 ccaaggacac tggggaaaat gaagtatctg tgatttacac taacaggcaa cttctttctc 540
295 tctccttctc tccctctctc ttccccgaca gaggcagtca tgtacgaaac attaaaaat 598

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298 &lt;210&gt; SEQ ID NO: 11

299 &lt;211&gt; LENGTH: 598

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303 &lt;220&gt; FEATURE:

304 &lt;221&gt; NAME/KEY: misc\_feature

305 &lt;222&gt; LOCATION: (1)..(129)

306 &lt;223&gt; OTHER INFORMATION: n is any nucleotide

308 &lt;400&gt; SEQUENCE: 11

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311 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
313 nnnnnnnnnn tcaaccagc acagaggggc tggatcagaa ctcaattctc atcgggtttt 180
315 ccaccatggg gttcccctcg cccggacgct cgatcttgaa aacttcattc acgaagacaa 240
317 tccgacagtc attgagagaa tcacccttac aagagaaacag gcctgttagg atgaccagcr 300
319 ggccagtctc accgatgacc ccaaaaagacc cggccacttg gacatgttct cagagcccat 360
321 gaacagctct gattctaatt ataysgtaga agagggtttc gyggggccct atgaactcgc 420
323 ctagctacta ccctcgmaaa ttcaagtcct accacatcag gaacgaggtg aaaacaaata 480
325 agccagagtt tcagtatgtg atgcattttc gagaataatt tttaaccttt ggcaggtgag 540
327 gccactaag aggcaaggcc cactaaacaa ggctcaatag gcaaaaacta tgaagaag 598
330 <210> SEQ ID NO: 12
331 <211> LENGTH: 600

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340 agcttaaatac agaaaacccs ttctttaata cagagtgaga agtggaatct ctgcttagtg      180
342 tgacatgaaa aatccagttc ctgtgagttt gctattagag taagagggat tcgttagtg      240
344 agactaatgg gtagttgtct catggcatac gggatcttcc tggaccagga attgaaccr      300
346 tgctcctgc atttcaggca gattctttac cactgagcca ccgaggaagc cctgtgcttg      360
348 ctcttytggt tgtttttctt ggtgctgaga gtcacaggga tagatctgcc tgggtgaatc      420
350 tgttgtagaa gcttttagcct caagatatc atgctcagca cagattcaga aaatgttctg      480
352 aatcatctgc tggctgaaac atccraggac tcagtacatc gtctgacaga tatgtggaca      540
354 ggagacatcc agtaaggatg cacagtggcc ggtgatcact cgaggtgtgt gacactcttg      600
357 <210> SEQ ID NO: 13
358 <211> LENGTH: 600
359 <212> TYPE: DNA
360 <213> ORGANISM: Bovine MMBT00070
362 <400> SEQUENCE: 13
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367 acacagaggg tgagagaccc tctctgcgca tgcggtctga tgggcagagg ccagtgacct      180
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377 tcagctgcgg cacgcagagt ccaggcgtgc gggcttctcc ctgtctgagg tgtgcaggat      480
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384 <210> SEQ ID NO: 14
385 <211> LENGTH: 598
386 <212> TYPE: DNA
387 <213> ORGANISM: Bovine MMBT00430
389 <220> FEATURE:
390 <221> NAME/KEY: misc_feature
391 <222> LOCATION: (1)..(163)
392 <223> OTHER INFORMATION: n is any nucleotide
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397 nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn      120
399 nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnnnnnnnnnn nnnntctgcta gggttacattc      180
401 actataggcc taggagggtc accagctggg gagagcggat ggcccactga aaagagcatc      240
403 ctaacagggc cacctagtga atgctcagct tcttagggaa acttcttttc agtattggtr      300
405 tctgaagtat tgatctgatg gaggaagagc catgctcttc atggagacca ttatcaggga      360
407 ttttatggac tattgcttca ggtggagtgt ggagtaatta tttccttaag actctttgta      420
409 tgtataattg tattcctgct actcaggata tggtcagaaa ataattacta ttgaattaac      480
411 tgcattgaca gtctttcart tctactacca agactgtttg catttaagct aagtttcctc      540
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416 <210> SEQ ID NO: 15
417 <211> LENGTH: 600

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**RAW SEQUENCE LISTING ERROR SUMMARY**  
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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:14; N Pos. 118,119,120,121,122,123,124,125,126,127,128,129,130,131,132  
Seq#:14; N Pos. 133,134,135,136,137,138,139,140,141,142,143,144,145,146,147  
Seq#:14; N Pos. 148,149,150,151,152,153,154,155,156,157,158,159,160,161,162  
Seq#:14; N Pos. 163  
Seq#:19; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:19; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:19; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63  
Seq#:19; N Pos. 64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,79,80,81,82,83  
Seq#:19; N Pos. 84,85,86,87  
Seq#:20; N Pos. 1  
Seq#:27; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:27; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:27; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63  
Seq#:27; N Pos. 64,65,66,67,68,69,70  
Seq#:33; N Pos. 1,2,3  
Seq#:35; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:35; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:35; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63  
Seq#:35; N Pos. 64,65,66,67,68,69,70,71,72,73,74,75  
Seq#:37; N Pos. 1,2  
Seq#:38; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:38; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:38; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63  
Seq#:38; N Pos. 64

## RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 09/02/2004

PATENT APPLICATION: US/10/750,622

TIME: 09:58:34

Input Set : D:\MMI1150.txt

Output Set: N:\CRF4\09022004\J750622.raw

Seq#:44; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:44; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:44; N Pos. 44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63  
Seq#:44; N Pos. 64  
Seq#:46; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23  
Seq#:46; N Pos. 24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43  
Seq#:46; N Pos. 44,45,46,47,48,49,50

## VERIFICATION SUMMARY

DATE: 09/02/2004

PATENT APPLICATION: US/10/750,622

TIME: 09:58:34

Input Set : D:\MMI1150.txt

Output Set: N:\CRF4\09022004\J750622.raw

L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
M:341 Repeated in SeqNo=8  
L:277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
M:341 Repeated in SeqNo=11  
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
M:341 Repeated in SeqNo=14  
L:535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0  
M:341 Repeated in SeqNo=19  
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0  
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0  
M:341 Repeated in SeqNo=27  
L:928 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
L:987 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0  
M:341 Repeated in SeqNo=35  
L:1046 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0  
L:1080 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0  
M:341 Repeated in SeqNo=38  
L:1245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0  
M:341 Repeated in SeqNo=44  
L:1304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0  
L:1417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0  
L:1559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0  
M:341 Repeated in SeqNo=55  
L:1726 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0  
L:1866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:0  
M:341 Repeated in SeqNo=66  
L:2243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80 after pos.:0  
L:2275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0  
L:2575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92 after pos.:0  
L:2879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:0  
M:341 Repeated in SeqNo=103  
L:2992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:107 after pos.:0  
L:3159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:113 after pos.:0  
L:4215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:0  
M:341 Repeated in SeqNo=152  
L:4625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:167 after pos.:0  
M:341 Repeated in SeqNo=167  
L:4873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:0  
M:341 Repeated in SeqNo=176  
L:5040 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:182 after pos.:0  
M:341 Repeated in SeqNo=182  
L:5072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183 after pos.:0  
M:341 Repeated in SeqNo=183  
L:5347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:193 after pos.:0  
L:5678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:205 after pos.:0  
M:341 Repeated in SeqNo=205  
L:5872 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212 after pos.:0



**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/750,622

DATE: 09/02/2004

TIME: 09:58:34

Input Set : D:\MMI1150.txt

Output Set: N:\CRF4\09022004\J750622.raw

L:6201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:224 after pos.:0

L:6476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:234 after pos.:0